UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/706,814	11/07/2000	Kang-Wook Chun	Q61285	5957

7590 12/18/2006

Sughrue Mion Zinn Macpeak & Seas PLLC
2100 Pennsylvania Avenue NW
Washington, DC 20037-3202

EXAMINER	
VENT, JAMIE J	
ART UNIT	PAPER NUMBER
2621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/18/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/706,814	CHUN, KANG-WOOK	
	Examiner	Art Unit	
	Jamie Vent	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 28, 2006 has been entered.

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1,2,5,9,10,14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable by Hamada (US 6,754,347) in view of Blatter et al (US 5,838,873).

[claim 1]

In regard to Claim 1, Hamada discloses an apparatus for storing audio and/or video data which is transmitted in the form of a packet including a program specific information (PSI), the audio and/or video data storing apparatus comprising:

- A packet parser for extracting packet identification information from a PSI packet and outputting additional information corresponding to the extracted packet identification information and an audio and/or video packet (Figure 4 shows the extracting packet information from a PSI as further described in Column 8 Lines 4-14);
- An audio/video parser for parsing an audio and/or video packet using the packet identification information and outputting an audio and/or video packet (Figure 8 shows the output of audio or video packet information after the information has been parsed);
- A storage medium (Figure 1 shows the storage device DVCR 7); and
- A controller for controlling each element so that the additional information is inserted into the audio and/or video packet so as to be stored in the storage medium (Figure 2 shows the controller 14 which controls each element that is inserted into the audio/video packet to be stored); however, fails to disclose an audio/video producer for inserting the additional information supplied from the packet parser into a particular region in the audio and/or video packet supplied from the audio/video parser.

Blatter et al teaches the inserting of additional information of a transport stream as recited in Column 2 Lines 24+ and Column 4 Lines 15+ and shown in Figure 1. As described by Hamada and taught by Blatter et al, the inserting of additional information into the transport stream is well known and commercially available, providing the user with management data for the recording that is read rapidly and allowing the use of the data to be inserted into the stream. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Blatter et al in order to specifically put the PSI data at the head of a MPEG stream and thereby meeting the limitation of inserting additional information.

[claim 2]

In regard to Claim 2, Hamada discloses the audio/video data storing apparatus wherein the packet parser comprises:

- A program association table (PAT) parser for searching the packet to thereby detect packet identifier information of a plurality of tables included in the PAT and outputting the detected results (Column 8 Lines 15-44 describes the PAT parser for searching the packet to thereby detect packet identifier information to a plurality of tables);
- A program map table (PMT) parser for detecting audio and or video packet using the table packet and outputting the detected result (Column 8 Lines 23-37 describes the PMT parser for detecting audio and video packet information);

- A plurality of table parsers for outputting additional information of the plurality of table packets (Figure 8 shows the parsing of various information from plurality of table packets as further described in Column 8 Lines 5+); and
- An audio/video packet processor for converting the pattern of the audio and or video packet detected from the PMT parser and outputting the converted result (Column 8 Lines 23-44 describes the detection of PMT and outputting the correct result).

[claim 5]

In regard to Claim 5, Hamada discloses the audio/video storing apparatus wherein said audio/video parser further comprises a decryptor for decrypting the audio and or video packet in the case that the audio and or video packet supplied from the packet parser has been encrypted (Figure 8 shows the decryptor for decrypting audio and video prior to information being parsed).

[claims 9,14 & 16]

In regard to Claim 9, 14, and 16 Hamada discloses audio/video data storing apparatus wherein additional information is image feature information such as a title, classification code, a time, content information, energy information and motion information of a user desired program (Column 3 Lines 7-20 describes the additional information provided for the users desired program).

[claim 10]

In regard to Claim 10, Hamada discloses an apparatus for storing received audio and or video data the audio and or video data storing apparatus comprising:

- An encoder for converting the received audio and or video signal into an audio and or video packet and outputting the converted result (Figure 2 shows the system wherein an encoder is used for converting received audio and video signals);
- A feature parser for parsing features of the input audio and video signal and outputting the parser result (Figure 8 shows the parser for parsing various features);
- A program information imputer for receiving user desired program information (Figure 8 shows the desired input into the system as requested by the user);
- An additional information processor for producing additional information based on the program information supplied from the program information imputer and the parsed result supplied from the feature parser and outputting the produced additional information (Figure 8 shows the data parser potion which produces additional information based from the controller as seen in Figure 2);
- An audio/video producer for inserting the additional information supplied from the additional information processor into a particular region of the audio/video packet supplied from the encoder (Figure 6 shows additional

information that can be added to the packet parser into a particular region);

- A storage medium (Figure 1 shows the storage device DVCR 7); and
- A controller for controlling each elements that the additional information is inserted into the audio/video packet so as to be stored in the storage medium (Figure 2 shows the controller 14 which controls each element that is inserted into the audio/video packet to be stored).

[claim 15]

In regard to Claim 15, Hamada discloses an apparatus for searching audio or video data having the form of an audio and or video packet including additional information of user desired program, the audio/video data searching apparatus comprising:

- Input portion for receiving an audio and or video packet including additional information (Figure 8 shows the input of the audio and video packets);
- An additional information classifier for parsing the audio and or video packet from the input portion and extracting and outputting the additional information and then outputting the audio and or video packet expecting for the additional information (Figure 7 shows the controller 14 which classifies the parsing of the audio and video packets);
- An additional information parser comparing the additional information received from the additional information classifier with user search information and outputting a parsed result with respect to whether or not

the search information is included it the additional information (Figure 8 shows the data parser potion which produces additional information based from the controller as seen in Figure 2);

- An audio/video decoder for decoding an audio an or video packet supplied form the additional information classifier according to the parsed result supplied from the additional information parser (Figure 2 shows the decoding portion of the system); and
- An output portion for outputting a decoded result supplied from the audio/video decoder and the additional information (Figure 2 shows the output of the outputted decoded results).

Claims 3, 4,6,7,8,11,12,13 rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada (US 6,754,347) in view of Blatter et al (US 5,838,873) in further view of Oishi et al (US 6,779,195).

[claim 3]

In regard to Claim 3, Hamada discloses the audio/video data storing apparatus having a time data table parser for receiving a TDT packet from the PMT parser and outputting additional information as further disclosed in Column 10 Lines 58+; however fails to disclose plurality of table parsers further comprising:

- A network information table (NIT) parser for receiving a NIT packet from the PMT parser and outputting an event information table (EIT packet);

- An EIT parser for receiving the EIT packet from the NIT parser and outputting additional information; and
- A service description table (SDT) parser for receiving a SDT packet from the PMT parser and outputting additional information.

Oishi et al discloses a signal processing apparatus wherein NIT packet is received from the PMT and further outputs an event information table as described in Column 5 Lines 10+. Furthermore, it is disclosed that an EIT parser is used to receive EIT packet information from the NIT parser and that a service description table is received from the PMT parser for outputting additional information pertaining to the audio video information as disclosed in Column 6 Lines 1-32. The additional information from the various tables allows the user to search and use the information regarding the audio and video information in a more efficient manner. Therefore, it would have been obvious to one of ordinary skill in the art to use the audio/video data storage system, as disclosed by Hamada, and incorporate a system wherein network information, event information, and service description information can further be incorporated into the video and audio information, as disclosed by Oishi et al.

[claims 4, 7, 8, 11, 12, & 13]

In regard to Claims 4, 7, 8, 11, 12, and 13, Hamada discloses the audio/video storing apparatus wherein said audio/video packet processor; however, fails to disclose the converting of the audio/video packet into a packetized elementary stream (PES). Oishi et al discloses a packet format of the PES packet wherein as seen in Figure 4 a header region is available as well as user data region which is used to insert additional

information into the data stream. Therefore, it would have been obvious to one of ordinary skill in the art to use the audio/video storing apparatus as disclosed b Hamada and incorporate the method of converting the audio/video packet into packetized elementary streams (PES), as disclosed by Oishi et al, which allows for additional information to be stored into various parts of the data stream.

[claim 6]

In regard to Claim 6, Hamada discloses an audio/video data storing apparatus; however, fails to discloses a header detector for detecting a header region in the audio and or video packet from the audio/video parser and outputting the detected result and an additional information inserter for inserting the additional information supplied from the packet parser into the header region detected in the header detector. Oishi et al discloses that header regions are used to output the detected result and for inserting additional information as disclosed in Column 4 Lines48-62 and it is further seen in Figure 12 the signal processing unit which detects header regions of the audio/video stream to be used for further manipulation of data. Therefore, it would have been obvious to one of ordinary skill in the art to use the audio/video data storing apparatus as disclosed by Hamada, and incorporate a system wherein header portions are detected, as disclosed by Oishi et al, to allow for adding of additional information into the data stream.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Blatter et al (US 5838873)
- Tanaka et al (US 6292621)
- Ohishi et al (US 7027718)
- Tenunissen (US 7095948).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamie Vent whose telephone number is 571-272-7384. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jamie Vent

THAI Q. TRAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600